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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,118	10/17/2003	Kenneth Douglas Vinson	9066M2	9231

27752 7590 09/27/2005

THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION
WINTON HILL TECHNICAL CENTER - BOX 161
6110 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER

CORDRAY, DENNIS R

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,118

Applicant(s)

VINSON, KENNETH DOUGLAS

Examiner

Dennis Cordray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/16/2004, 4/22/20</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

This is a first action on the merits of Application SN 10/688118.

Specification

1. The disclosure is objected to because of the following informalities:
 - On page 4, line 11, the word "if" near the end of the line should be "is".
 - On page 5, line 26, the word "facture" should be "fracture".
 - On page 6, line 7, the word "if" should be "is".
 - On page 14, line 13, "MW" or "molecular weight" should be inserted between the words "high" and "polymer".
 - On page 11, line 25, "HLB" should be defined.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Chamberlain (5529975).

Chamberlain discloses a composition comprising a continuous aqueous phase and a dispersed oil phase that contains a polymer in an amount from 0.005% to 0.5% by weight of the composition (col 3, lines 37-41, col 7, lines 11-12). The polymer can have a molecular weight of up to 4,000,000, which significantly overlaps the claimed

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range for the "high molecular weight" polymer (col 10, lines 57-58). The polymer is added to the aqueous phase as a water-in-oil (reverse phase) dispersion containing the polymer in a dispersed aqueous phase within a continuous oil (organic) phase (col 7, lines 11-12 and col 8, lines 33-35).

The composition disclosed by Chamberlain is suitable for atomizing without excessive aerosolization and the addition of the water-in-oil dispersion will modify the rheology of the continuous aqueous phase because, where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

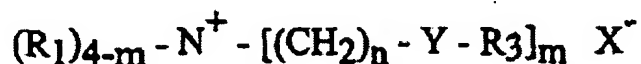
3. Claims 6-9 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Barnholtz et al (WO 02/48458).

Claims 6-9: Barnholtz et al claims a composition for softening an absorbent tissue (pp 53-54, claims 7-9) comprising:

- An amount of softening active ingredient of at least 35% of the composition,
- A vehicle in which the active ingredient is dispersed,
- An electrolyte,
- A high molecular weight polymer in an amount between 0.01% and 5% of the composition,

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where the softening active ingredient is a quaternary ammonium compound having the formula



wherein Y is -O-(O)C-, or -C(O)-O-, or -C(O)-O-, or -NH-C(O)-, or -C(O)-NH-;

m is 1 to 3 (mono-, di- or tri-ester);

n is 0 to 4;

each R₁ is a C₁-C₆ alkyl or alkenyl group, hydroxyalkyl group, hydrocarbyl or substituted hydrocarbyl group, alkoxyated group, benzyl group, or mixtures thereof;

each R₃ is a C₁₃-C₂₁ alkyl or alkenyl group, hydroxyalkyl group, hydrocarbyl or substituted hydrocarbyl group, alkoxyated group, benzyl group, or mixtures thereof; and X⁻ is any softener-compatible anion.

The composition disclosed significantly overlaps and thus anticipates the claimed composition.

Claim 14: Barnholtz et al discloses that the electrolyte can be present in an amount up to 25% of the composition (p 21, lines 14-15). Barnholtz et al further discloses that a plasticizer can be added in an amount between 5% and 75% of the composition (p 19, lines 14-17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 5, 10-13 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnholtz et al in view of Anderson et al (3624019).

Claim 4 and 10-13: Barnholtz et al discloses a composition for softening an absorbent tissue comprising:

- A quaternary ammonium softening active ingredient (p 15, lines 24-25);
- An electrolyte that can be present in an amount up to 25% of the composition (p 21, lines 14-15);
- A vehicle in which the softening active ingredient is dispersed, which vehicle can be water (p 20, lines 15, 23-24);
- A high molecular weight polymer which modifies the rheology of the aqueous composition (p 30, lines 10-12);
- Optionally, a plasticizer in an amount between 5% and 75% of the composition (col 19, lines 14-16);
- Optionally, a bilayer disruptor in an amount between 2% and 15% of the level of active ingredient (col 22, lines 27-28).

The above disclosed composition significantly overlaps that of the claimed invention.

Barnholtz et al does not disclose adding the high molecular weight polymer via a water-in-oil emulsion containing the high molecular weight polymer.

Anderson et al discloses a high molecular weight polymer added to a continuous aqueous phase as a water-in-oil emulsion (col 1, lines 33-42, col 2, lines 12-13). The

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emulsion can comprise 2-75% by weight of the emulsion to be commercially practical (col 3, lines 36-40). The oil to water ratio in the emulsion be from 5:1 to 1:10 as a general rule (col 2, lines 65-67). Thus the water can be present in an amount from 9% to 89% of the emulsion and the oil can be present in an amount from 9% to 81% of the emulsion. The compositional range encompasses the claimed range. Anderson teaches that inversion of the water-in-oil emulsion in water causes the high molecular weight polymer to be rapidly dispersed into the water (col 1, lines 33-35). Anderson also teaches that the polymers exhibit superior thickening properties in aqueous solutions (i.e.-are rheology modifiers) and are used in papermaking processes (col 1, lines 4-9).

The art of Barnholtz et al, Anderson et al and the instant invention are analogous in that they pertain to aqueous solutions used in papermaking processes.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a water-in-oil emulsion having the claimed composition to add the high molecular weight polymer to the softening composition of Barnholtz et al in view of Anderson et al in order to rapidly disperse the high molecular weight polymer in the aqueous solution.

Claim 5: Barnholtz et al does not teach that the high molecular weight polymer is a cationic polymer.

Anderson et al teaches that cationic, anionic or nonionic high molecular weight polymers can be used (col 2, lines 1-11). It would have been obvious to one of ordinary

skill in the art at the time of the invention to make the high molecular weight polymer cationic as one of the usable choices.

Claims 15-20: Barnholtz et al discloses a soft tissue product comprising a tissue paper and a softening composition as described above in the rejection of claim 4 (pp 38-42). Barnholtz also discloses applying the softening composition by a spray applicator (p 38, lines 5-6) and that the softening composition is deposited as uniform, discrete surface deposits, spaced apart at a frequency between 5 areas per lineal inch and 100 areas per lineal inch (p 51, claim 2).

Barnholtz does not disclose a tissue made using the softening composition comprising the water-in-oil emulsion containing water, oil (organic solvent) and the high molecular weight polymer.

Per the reasoning used in the rejection of claim 4, It would have been obvious to one of ordinary skill in the art at the time of the invention to use a water-in-oil emulsion having the claimed composition to add the high molecular weight polymer to the softening composition of Barnholtz et al in view of Anderson et al in order to rapidly disperse the high molecular weight polymer in the aqueous solution and then to use the softening composition to make a tissue paper.

5. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 2 is allowable over prior art because there is insufficient prior art teaching the limitations of the claim for the purpose disclosed. It would not have been obvious for one with ordinary skill in the art at the time of the

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invention to specify that the continuous aqueous phase comprises less than about 45% by weight of the composition.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure [Ruffner (4745154), Schieferstein et al (5358988), Vanderhoff et al (6214331)]. They pertain to other water-in-oil dispersions containing water soluble polymers and their uses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DRC


DIONNE A. WALLS
PRIMARY EXAMINER